Complete Summary

GUIDELINE TITLE

Procedure guideline for the use of radiopharmaceuticals.

BIBLIOGRAPHIC SOURCE(S)

Society of Nuclear Medicine. Procedure guideline for the use of radiopharmaceuticals, 3.0. Reston (VA): Society of Nuclear Medicine; 2001 Jun 23. 6 p. (Society of Nuclear Medicine Procedure Guidelines; version 3.0).

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Conditions for which nuclear medicine studies are indicated

GUIDELINE CATEGORY

Assessment of Therapeutic Effectiveness
Diagnosis
Risk Assessment

CLINICAL SPECIALTY

Nuclear Medicine
Radiology

INTENDED USERS

Allied Health Personnel
Physicians

GUIDELINE OBJECTIVE(S)

- To describe important factors common to most nuclear medicine procedures
- To guide nuclear medicine practitioners in establishing policies and procedures for the use of radiopharmaceuticals in clinical practice

TARGET POPULATION

Adults and children undergoing nuclear medicine procedures

INTERVENTIONS AND PRACTICES CONSIDERED

Clinical use of radiopharmaceuticals

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Relevant guidelines from other organizations were reviewed and taken into consideration. Literature searches were performed to include current scientific evidence. In addition, references known to experts and references from the nuclear medicine community were considered.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Drafts of the guideline were submitted to members of the Guideline Development subcommittee (methodologists) and the Task Force (subject experts). These reviewers indicated on a line-by-line basis any suggestions or recommendations for the revision of the guideline. The percentage of agreement for all reviewers was calculated for each revision and compiled by the Society of Nuclear Medicine (SNM) central office. It is expected that the percentage of agreement will increase with each revision.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

When the Task Force and Guideline Development Subcommittee completed their edits, draft procedure guidelines were distributed to the SNM Sample Review Group for comment. (The SNM Sample Review Group is a cross-section of approximately 100 nuclear medicine practitioners representing every field of specialization).

Guidelines were approved by the Society of Nuclear Medicine Guidelines and Communications Committee and the House of Delegates.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Background Information and Definitions

Radiopharmaceuticals (also known as radioactive drugs) are drugs that contain radionuclides that emit radiation(s). The distribution of the radiopharmaceutical within the body is determined by the physiochemical properties of the drug, the stability of the radiolabel, the purity of the radiopharmaceutical preparation, the pathophysiological state of the patient and the presence or absence of interfering drugs. Dynamic and static images of the distribution of the radiopharmaceutical within the body can be obtained using a gamma camera, or other suitable instrument appropriate for the radiopharmaceutical being imaged, e.g. positron emitting radiopharmaceuticals. Measurement of radioactivity in specified sites of accumulation or in biological samples following administration of the radiopharmaceutical can be performed for non-imaging procedures. High dose, nonpenetrating radiation in localized sites of accumulation of the radiopharmaceutical can be useful for therapeutic procedures.

Physiologic and pharmacologic interventions are procedures, which increase the sensitivity and/or specificity of a nuclear medicine procedure by affecting the distribution and pharmacokinetics of the administered agents through an alteration in organ physiology.

Common Indications

Any procedure which uses a radiopharmaceutical (see specific procedure guideline).

Procedure

The detailed procedure recommendations in the guideline address the following areas: clinical use of radiopharmaceuticals, elution of generators and on-site preparation of kits, positron emitting radiopharmaceuticals, record keeping, adverse reactions/product problems, misadministration of radiopharmaceuticals, special considerations for labeled blood products, drug interactions and altered distribution patterns.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

The intent of the procedure guideline is to describe clinical use of radiopharmaceuticals, in order to maximize the diagnostic information obtained in nuclear medicine procedures while minimizing the resources that are expended.

POTENTIAL HARMS

Adverse reactions and/or misadministration of radiopharmaceuticals and labeled blood products is possible.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

The Society of Nuclear Medicine has written and approved guidelines to promote the cost-effective use of high quality nuclear medicine procedures. These generic recommendations cannot be applied to all patients in all practice settings. The guidelines should not be deemed inclusive of all proper procedures or exclusive of other procedures reasonably directed to obtaining the same results. The spectrum of patients seen in a specialized practice setting may be quite different than the spectrum of patients seen in a more general practice setting. The appropriateness of a procedure will depend in part on the prevalence of disease in the patient population. In addition, the resources available to care for patients may vary greatly from one medical facility to another. For these reasons, guidelines cannot be rigidly applied.

Advances in medicine occur at a rapid rate. The date of a guideline should always be considered in determining its current applicability.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Society of Nuclear Medicine. Procedure guideline for the use of radiopharmaceuticals, 3.0. Reston (VA): Society of Nuclear Medicine; 2001 Jun 23. 6 p. (Society of Nuclear Medicine Procedure Guidelines; version 3.0).

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1998 Jun (updated 2001 Jun 23)

GUIDELINE DEVELOPER(S)

Society of Nuclear Medicine, Inc - Medical Specialty Society

SOURCE(S) OF FUNDING

Society of Nuclear Medicine (SNM)

GUIDELINE COMMITTEE

Guideline Task Force

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline. This guideline updates a previously released version: Procedure guideline for the use of radiopharmaceuticals. Reston (VA): Society of Nuclear Medicine; 1998 Jun. 15 p. (Society of Nuclear Medicine Procedure Guidelines; version 2.0).

An update is not in progress at this time.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Society of Nuclear Medicine (SNM) Web site.

Print copies: Available from SNM, Division of Health Care Policy, 1850 Samuel Morse Dr, Reston, VA 20190-5316; Phone: 1-800-513-6853 or 1-703-326-1186; Fax: 703-708-9015; E-Mail: ServiceCenter@snm.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Society of Nuclear Medicine. Procedure guideline for guideline development. Reston (VA): Society of Nuclear Medicine; 2001 Jun (version 3.0).

  Electronic copies: Available from the Society of Nuclear Medicine Web site.

- Society of Nuclear Medicine. Performance and responsibility guidelines for NMT. Reston (VA): Society of Nuclear Medicine; 2003.

  Electronic copies: Available from the Society of Nuclear Medicine Web site.

Print copies: Available from SNM, Division of Health Care Policy, 1850 Samuel Morse Dr, Reston, VA 20190-5316; Phone: 1-800-513-6853 or 1-703-326-1186; Fax: 703-708-9015; E-Mail: ServiceCenter@snm.org.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on July 20, 1999. It was verified by the guideline developer as of August 5, 1999. This updated summary was completed by ECRI on November 17, 2001. It was verified by the guideline developer as of November 27, 2001.

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Date Modified: 11/8/2004